

FIELD OFFICE TECHNICAL GUIDE: BLACK HILLS TECHNICAL GUIDE
LOCATION:
AREA:
STATE: SOUTH DAKOTA

RANGE SITE DESCRIPTION

RANGE SITE NAME . : MOUNTAIN PRAIRIE

RANGE SITE NUMBER : 062XY032SD

ORIGINAL DATE ... : 05/13/1992

REVISION DATE ... : 05/13/1992

AUTHOR'S INITIALS : RDB/DWS

* SOIL NARRATIVE:

THESE ARE MODERATELY DEEP, WELL DRAINED SOILS FORMED IN MATERIAL WEATHERED FROM METAMORPHIC ROCK. THE SURFACE TEXTURE IS TYPICALLY CHANNERY LOAM, WHILE THE SUBSURFACE TEXTURE IS VERY FLAGGY LOAM OR VERY FLAGGY SANDY LOAM. THESE SOILS OCCUR ON MOUNTAIN PRAIRIES. PERMEABILITY IS MODERATE.

* LIST OF SOIL TAXONOMIC UNITS OR SOILS MAPPING UNITS FOR ALL SOILS INCLUDED IN THIS SITE:

HEELY CHANNERY LOAM

* LANDSCAPE FACTORS

PHYSIOGRAPHY:

ELEVATION/ASPECT:

LOW 3500 ft / HIGH 7200 ft /

PERCENT SLOPE:

LOW 6
HIGH 30

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* CLIMATE FACTORS

FREEZE-FREE PERIOD (FFP): 0 TO 0 (DAYS)
FROST-FREE PERIOD: 111 TO 123 (DAYS)
MEAN ANNUAL PRECIPITATION (MAP): 18 TO 26 (INCHES)
MEAN ANNUAL AIR TEMPERATURE (MAAT): 34 TO 55 (F)
MEAN ANNUAL SOIL TEMPERATURE (MAST): 32 TO 57 (F)

MOISTURE AND TEMPERATURE DISTRIBUTION:

	-JAN---	FEB---	MAR---	APR---	MAY---	JUN---	JUL---	AUG---	SEP---	OCT---	NOV---	DEC---
- PPT -												
HIGH	4.78	4.32	4.79	7.82	15.31	10.02	8.78	7.77	5.08	3.28	6.30	3.51
MEAN	1.13	1.10	1.75	3.10	4.02	4.07	2.56	2.00	1.86	1.47	1.26	1.09
LOW	0.00	0.17	0.52	0.45	0.47	0.81	0.43	0.22	0.04	0.00	0.03	0.19
- TEMP -												
HIGH	33	35	41	51	61	72	81	79	69	58	44	36
MEAN	23	25	30	41	50	60	68	67	57	47	34	27
LOW	14	16	20	30	39	49	56	54	45	36	25	18

* VEGETATION FACTORS - CLIMAX PLANT COMMUNITY

RANGE SITE DESCRIPTION NARRATIVE:

THE POTENTIAL NATIVE VEGETATION ON THIS SITE IS A MIXED GRASS PRAIRIE OF WARM AND COOL SEASON GRASSES. LITTLE BLUESTEM, SIDEOATS GRAMA, BIG BLUESTEM AND PRAIRIE DROPSEED ARE THE DOMINANT WARM SEASON GRASSES. WESTERN WHEATGRASS, NEEDLEANDTHREAD AND JUNEGRASS ARE THE DOMINANT COOL SEASON GRASSES. SEDGES AND BLUEGRASS OCCUR IN THE UNDERSTORY. FORBS SUCH AS SAGEWORT, YARROW, AND SCURFPEA ARE COMMON ON THIS SITE. SHRUBS SUCH AS LEADPLANT OCCUR ON THE SITE BUT ARE NEVER DOMINANT.

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PERCENT COVER:

GROUND COVER AND STRUCTURE:

	% CANOPY COVER (VERTICAL VIEW)	AVERAGE HEIGHT (FT)	% BASAL AREA COVER
GRASSES AND GRASSLIKES	80	3.00	65
FORBS	10	1.50	5
CRYPTOGAMS	0	0.00	0
SHRUBS	3	2.50	2
TREES	0	0	0

PLANT COMMUNITY COMPOSITION AND PRODUCTION:

Herbaceous

Grasses and grasslikes

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
ANGE	BIG BLUESTEM	1	0 to 0	5 to 15
PAVI2	SWITCHGRASS	1	0 to 0	5 to 15
SONU2	INDIANGRASS	1	0 to 0	5 to 15
SCSC	LITTLE BLUESTEM	2	0 to 0	20 to 35
BOCU	SIDEOATS GRAMA	2	0 to 0	20 to 35
POA++	BLUEGRASS	0	0 to 5	0 to 0
STCO3	COLUMBIA NEEDLEGRASS	3	0 to 0	0 to 5
STRI2	RICHARDSEN NEEDLEGRASS	3	0 to 0	0 to 5
STVI4	GREEN NEEDLEGRASS	3	0 to 0	0 to 5
AGSU	BEARDED WHEATGRASS	4	0 to 0	0 to 10
AGTR	SLENDER WHEATGRASS	4	0 to 0	0 to 10
ASSM	WESTERN WHEATGRASS	4	0 to 0	0 to 10
STCO4	NEEDLEANDTHREAD	0	0 to 5	0 to 0
SPHE	PRAIRIE DROPSEED	5	0 to 0	0 to 10

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Grasses and grasslike continued

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
SPAS	TALL DROPSEED	5	0 to 0	0 to 10
KOPY	PRAIRIE DROPSEED	0	0 to 10	0 to 0
BOGR2	BLUE GRAMA	6	0 to 0	5 to 15
BOHI2	HAIRY GRAMA	6	0 to 0	5 to 15
CAREX	SEDGES	0	0 to 5	0 to 0
MUCU3	PLAINS MUHLY	7	0 to 0	0 to 10
MURA	GREEN MUHLY	7	0 to 0	0 to 10

Forbs

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
ARLU	CUDWEED SAGEWORT	1	0 to 0	5 to 15
ARFR4	FRINGED SAGEWORT	1	0 to 0	5 to 15
ARCA12	GREEN SAGEWORT	1	0 to 0	5 to 15
ACMI2	WESTERN YARROW	1	0 to 0	5 to 15
PSES	BREADROOT SCURFPEA	1	0 to 0	5 to 15
PSAR2	SILVERLEAF SCURFPEA	1	0 to 0	5 to 15
PSTE3	SLIMFLOWER SCURFPEA	1	0 to 0	5 to 15

Shrubs

National Symbol	Common Name	Grp	% Composition by weight	Group % Allowable
AMCA6	LEADPLANT	0	0 to 5	0 to 0

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Production

Grasses and grasslikes: 80 to 95 % of total
 Forbs: 5 to 15 % of total
 Shrubs: 0 to 5 % of total
 Trees: 0 to 0 % of total
 Lichen community: 0.00 lbs/acre (NOT ANNUAL PRODUCTION)
 Moss community: 0.00 lbs/acre

Cover

Lichen community: 0 % cover
 Moss community: 0 % cover

* PLANT GROWTH CURVES

ID	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
NUMBER: SD0001	0	0	5	15	30	25	5	5	10	5	0	0
NAME: 100% COOL SEASON SPECIES												
DESC: 100% OF PRODUCTION PROVIDED BY COOL SEASON SPECIES												
NUMBER: SD0002	0	0	5	15	25	20	15	10	7	3	0	0
NAME: 75% COOL, 25% WARM												
DESC: 75% OF PRODUCTION FROM COOL SEASON PLANTS, 25% FROM WARM SEASON PLANT												
NUMBER: SD0003	0	0	5	15	20	20	20	10	7	3	0	0
NAME: 50% WARM, 50% COOL SEASON												
DESC: 50 % OF PRODUCTION FROM COOL SEASON PLANTS, 50% FROM WARM SEASON												
NUMBER: SD0004	0	0	5	5	15	25	30	10	7	3	0	0
NAME: 75% WARM, 25% COOL SEASON												
DESC: 75% OF FORAGE PRODUCED BY WARM SEASON PLANTS, 25% FROM COOL SEASON												
NUMBER: SD0005	0	0	0	0	10	35	30	20	5	0	0	0
NAME: 100% WARM SEASON PLANTS												
DESC: 100% OF PRODUCTION IS FROM WARM SEASON PLANTS												

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* TOTAL ANNUAL PRODUCTION (EXCELLENT CONDITION)

FAVORABLE 2500 TO 2800 lbs/acre

AVERAGE 2000 TO 2300 lbs/acre

UNFAVORABLE 1500 TO 1800 lbs/acre

LIVESTOCK DATA

* ESTIMATED STOCKING RATE

EXCELLENT 0 TO 0 AC/AU OR 0.7100 TO 1.0000 AUM/AC

GOOD 0 TO 0 AC/AU OR 0.5100 TO 0.7000 AUM/AC

FAIR 0 TO 0 AC/AU OR 0.3100 TO 0.5000 AUM/AC

POOR 0 TO 0 AC/AU OR 0.1000 TO 0.3000 AUM/AC

* WILDLIFE SPECIES LIST:

WHITE-TAILED DEER

MULE DEER

ELK

ANTELOPE

PRAIRIE DOGS

SHARP TAILED GROUSE

RACCOONS

SKUNKS

COYOTES

RED AND GRAY FOX

BOBCATS

GOLDEN EAGLES

RED-TAILED HAWK

* RANGE SITE DEGRADATION:

WITH OVERUSE THE BLUESTEMS, LEADPLANT AND GREEN NEEDLEGRASS
WILL BE THE FIRST TO DECREASE. THEY WILL BE REPLACED BY AN
INCREASE IN THE WHEATGRASSES AND SIDEOATS GRAMA. IF OVERUSE
CONTINUES THE WHEATGRASSES AND SIDEOATS GRAMA WILL GIVE WAY TO
SHORT GRASSES SUCH AS BLUE GRAMA AND BLUEGRASS. SEDGES WILL
ALSO INCREASE. WEEDY FORBS AND ANNUAL PLANTS WILL ALSO INCREASE
UNDER SEVERE USE.

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* TYPICAL LOCATION:

TO BE ENTERED LOCALLY.

